

FILE 'HOME' ENTERED AT 14:38:21 ON 12 DEC 2004

=> file reg

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 14:38:28 ON 12 DEC 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 10 DEC 2004 HIGHEST RN 796738-17-5

DICTIONARY FILE UPDATES: 10 DEC 2004 HIGHEST RN 796738-17-5

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

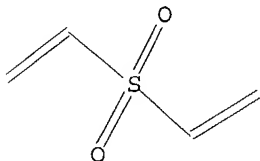
Uploading C:\Program Files\Stnexp\Queries\10731633.str

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 14:38:55 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 193 TO ITERATE

100.0% PROCESSED 193 ITERATIONS

25 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 3027 TO 4693

PROJECTED ANSWERS: 200 TO 800

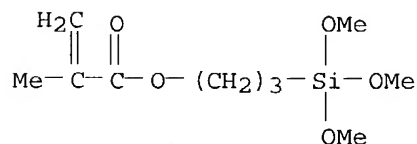
L2 25 SEA SSS SAM L1

=> d scan

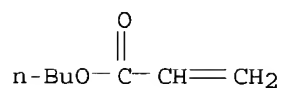
L2 25 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate,
methyl 2-methyl-2-propenoate, 1,1'-sulfonylbis[ethene] and
3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, ammonium salt (9CI)
MF (C10 H20 O5 Si . C8 H14 O2 . C7 H12 O2 . C5 H8 O2 . C4 H6 O2 S)x . x H3 N

CM 1

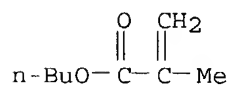
CM 2



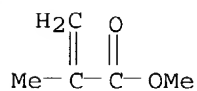
CM 3



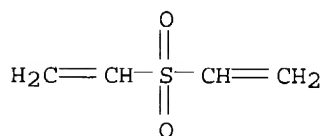
CM 4



CM 5



CM 6



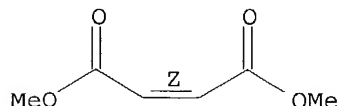
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L2 25 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

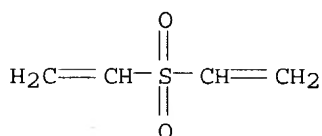
IN Maleic acid, dimethyl ester, polymer with vinyl sulfone (8CI)
MF (C6 H8 O4 . C4 H6 O2 S)x
CI PMS

CM 1

Double bond geometry as shown.



CM 2



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> s l1 full

FULL SEARCH INITIATED 14:39:21 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 3793 TO ITERATE

100.0% PROCESSED 3793 ITERATIONS
SEARCH TIME: 00.00.01

507 ANSWERS

L3 507 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

155.84

156.05

FILE 'CAPLUS' ENTERED AT 14:39:30 ON 12 DEC 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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FILE COVERS 1907 - 12 Dec 2004 VOL 141 ISS 25

FILE LAST UPDATED: 10 Dec 2004 (20041210/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 13 (L) electrolyte
1021 L3
228676 ELECTROLYTE
L4 17 L3 (L) ELECTROLYTE

=> s 13 and electrolyte
1021 L3
228676 ELECTROLYTE
L5 30 L3 AND ELECTROLYTE

=> d 1-30 ibib hitstr

L5 ANSWER 1 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:796490 CAPLUS

DOCUMENT NUMBER: 141:263480

TITLE: A nonaqueous **electrolyte** for a lithium secondary battery

INVENTOR(S): Noh, Hyeong-Gon; Jung, Cheol-Soo; Song, Eui-Hwan

PATENT ASSIGNEE(S): Samsung SDI Co., Ltd., S. Korea

SOURCE: Eur. Pat. Appl., 25 pp.

CODEN: EPXXDW

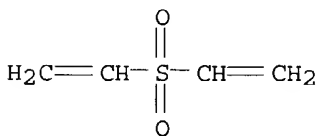
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1463143	A2	20040929	EP 2003-90265	20030821
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2004197667	A1	20041007	US 2003-653192	20030903
PRIORITY APPLN. INFO.:			KR 2003-18226	A 20030324
OTHER SOURCE(S):	MARPAT 141:263480			
IT 77-77-0,	Vinyl sulfone			
RL:	MOA (Modifier or additive use); USES (Uses)			
	(nonaq. electrolyte for lithium secondary battery)			
RN 77-77-0	CAPLUS			
CN	Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)			



L5 ANSWER 2 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:759329 CAPLUS

DOCUMENT NUMBER: 141:280368

TITLE: Secondary nonaqueous lithium battery

INVENTOR(S): Takahashi, Kentaro

PATENT ASSIGNEE(S): Sanyo Electric Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

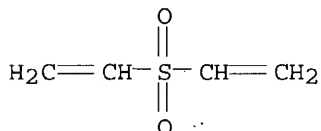
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004259681	A2	20040916	JP 2003-52001	20030227
PRIORITY APPLN. INFO.:			JP 2003-52001	20030227

IT 77-77-0, Divinyl sulfone
 RL: MOA (Modifier or additive use); USES (Uses)
 (electrolytes containing compds. having higher reduction potential than
 vinylene carbonate for secondary lithium batteries)

RN 77-77-0 CAPLUS

CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



L5 ANSWER 3 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:753254 CAPLUS

DOCUMENT NUMBER: 141:228183

TITLE: A nonaqueous **electrolyte** for lithium secondary battery

INVENTOR(S): Kim, Jin-Hee; Kim, Jin-Sung; Hwang, Sang-Moon; Paik, Meen-Seon; Kim, Hak-Soo

PATENT ASSIGNEE(S): Samsung SDI Co., Ltd., S. Korea; Cheil Industries Inc.

SOURCE: Eur. Pat. Appl., 33 pp.
 CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

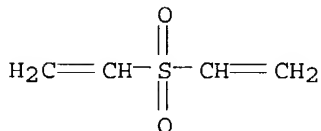
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1458048	A1	20040915	EP 2003-90262	20030821
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2004185347	A1	20040923	US 2003-658272	20030910
PRIORITY APPLN. INFO.:			KR 2003-15749	A 20030313
OTHER SOURCE(S):			MARPAT 141:228183	

IT 77-77-0, Vinylsulfone
 RL: DEV (Device component use); USES (Uses)
 (nonaq. **electrolyte** for lithium secondary battery)

RN 77-77-0 CAPLUS

CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

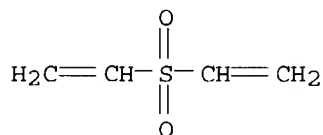
L5 ANSWER 4 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:652503 CAPLUS

DOCUMENT NUMBER: 141:159902
TITLE: **Electrolyte** for lithium secondary battery
INVENTOR(S): Kim, Jin-Sung; Lee, Jong-Wook; Kim, Kwang-Sik; Kim, Young-Gyu; Kim, Je-Yun; Kim, Jong-Seob
PATENT ASSIGNEE(S): S. Korea
SOURCE: U.S. Pat. Appl. Publ., 12 pp., Cont.-in-part of U.S. Ser. No. 766,520.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004157133	A1	20040812	US 2003-718478	20031118
US 2001009744	A1	20010726	US 2001-766520	20010119
PRIORITY APPLN. INFO.:			US 2001-766520	A2: 20010119
			KR 2000-2947	A 20000121
			KR 2000-81253	A 20001223

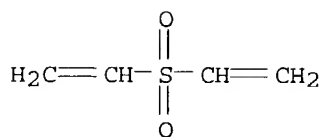
OTHER SOURCE(S): MARPAT 141:159902
IT 77-77-0, Vinyl sulfone
RL: MOA (Modifier or additive use); USES (Uses)
(**electrolyte** for lithium secondary battery)
RN 77-77-0 CAPLUS
CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



L5 ANSWER 5 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:433706 CAPLUS
DOCUMENT NUMBER: 140:426121
TITLE: **Electrolyte** for a lithium ion battery
INVENTOR(S): Noh, Hyeong-Gon
PATENT ASSIGNEE(S): S. Korea
SOURCE: U.S. Pat. Appl. Publ., 12 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004101762	A1	20040527	US 2003-716812	20031118
JP 2004172084	A2	20040617	JP 2003-281842	20030729
PRIORITY APPLN. INFO.:			KR 2002-72475	A 20021120

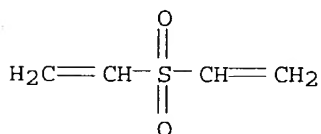
OTHER SOURCE(S): MARPAT 140:426121
IT 77-77-0, Vinyl sulfone
RL: MOA (Modifier or additive use); USES (Uses)
(**electrolyte** for lithium ion battery)
RN 77-77-0 CAPLUS
CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



L5 ANSWER 6 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2004:203431 CAPLUS
 DOCUMENT NUMBER: 140:238483
 TITLE: **Electrolyte** for a lithium battery
 INVENTOR(S): Park, Yong-Chul; Jung, Won-Ii; Kim, Geun-Bae; Cho, Jae-Phil; Jung, Cheol-Soo
 PATENT ASSIGNEE(S): S. Korea
 SOURCE: U.S. Pat. Appl. Publ., 13 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004048163	A1	20040311	US 2003-656086	20030905
JP 2004103573	A2	20040402	JP 2003-282119	20030729
			KR 2002-53879	A 20020906

PRIORITY APPLN. INFO.:
 OTHER SOURCE(S): MARPAT 140:238483
 IT 77-77-0, Vinyl sulfone
 RL: MOA (Modifier or additive use); USES (Uses)
 (**electrolyte** for lithium battery)
 RN 77-77-0 CAPLUS
 CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)

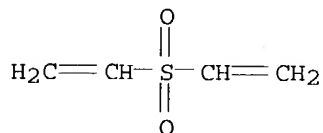


L5 ANSWER 7 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2004:119843 CAPLUS
 DOCUMENT NUMBER: 140:149224
 TITLE: Nonaqueous electrolytic solution with improved safety for lithium battery
 INVENTOR(S): Kim, Jun-ho; Lee, Ha-young; Choy, Sang-hoon; Kim, Ho-sung
 PATENT ASSIGNEE(S): Samsung SDI Co., Ltd., S. Korea
 SOURCE: U.S. Pat. Appl. Publ., 12 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004029018	A1	20040212	US 2003-637554	20030811
JP 2004079532	A2	20040311	JP 2003-290946	20030808
			KR 2002-47510	A 20020812

PRIORITY APPLN. INFO.:

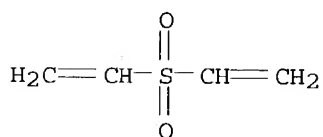
IT 77-77-0, Vinyl sulfone
 RL: MOA (Modifier or additive use); USES (Uses)
 (nonaq. electrolytic solution with improved safety for lithium battery)
 RN 77-77-0 CAPLUS
 CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



L5 ANSWER 8 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2004:59638 CAPLUS
 DOCUMENT NUMBER: 140:96917
 TITLE: Nonaqueous electrolytic solution for lithium battery
 INVENTOR(S): Abe, Koji; Hattori, Takayuki; Matsumori, Yasuo
 PATENT ASSIGNEE(S): Ube Industries, Ltd., Japan
 SOURCE: U.S. Pat. Appl. Publ., 10 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004013946	A1	20040122	US 2003-619005	20030715
CN 1487621	A	20040407	CN 2003-154625	20030715
JP 2004179146	A2	20040624	JP 2003-274986	20030715
PRIORITY APPLN. INFO.:			JP 2002-205560	A 20020715
			JP 2002-326391	A 20021111

IT 77-77-0, Divinyl sulfone
 RL: DEV (Device component use); USES (Uses)
 (nonaq. electrolytic solution for lithium battery)
 RN 77-77-0 CAPLUS
 CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



L5 ANSWER 9 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2003:796195 CAPLUS
 DOCUMENT NUMBER: 139:294681
 TITLE: **Electrolyte** for lithium battery to reduce overcharge and improve electrochemical characteristics
 INVENTOR(S): Kim, Jun-Ho; Lee, Ha-Young; Choy, Sang-Hoon; Kim, Ho-Sung; Noh, Hyeong-Gon
 PATENT ASSIGNEE(S): Samsung SDI Co., Ltd., S. Korea
 SOURCE: U.S. Pat. Appl. Publ., 19 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1

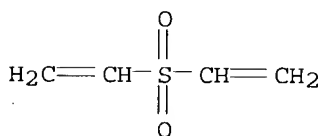
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003190529	A1	20031009	US 2003-393294	20030321
KR 2003079310	A	20031010	KR 2002-18264	20020403
CN 1449070	A	20031015	CN 2003-108529	20030328
JP 2003297426	A2	20031017	JP 2003-100349	20030403
			KR 2002-18264	A 20020403

PRIORITY APPLN. INFO.:
OTHER SOURCE(S): MARPAT 139:294681

IT 77-77-0, Vinyl sulfone
RL: MOA (Modifier or additive use); USES (Uses)
(electrolyte for lithium battery to reduce overcharge and improve electrochem. characteristics)

RN 77-77-0 CAPLUS
CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



L5 ANSWER 10 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:717588 CAPLUS

DOCUMENT NUMBER: 139:233057

TITLE: Method for production of anode active material composition for a rechargeable lithium battery

INVENTOR(S): Kim, Chang-Seob; Kim, Ju-Hyung; Park, Un-Sick

PATENT ASSIGNEE(S): S. Korea

SOURCE: U.S. Pat. Appl. Publ., 6 pp.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

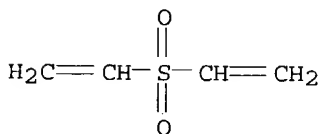
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003170534	A1	20030911	US 2003-371299	20030221
KR 2003072765	A	20030919	KR 2002-11952	20020306
JP 2003263988	A2	20030919	JP 2003-57561	20030304
CN 1442915	A	20030917	CN 2003-106878	20030306
			KR 2002-11952	A 20020306

PRIORITY APPLN. INFO.:
IT 77-77-0, Vinyl sulfone
RL: MOA (Modifier or additive use); USES (Uses)
(method for production of anode active material composition for rechargeable lithium battery)

RN 77-77-0 CAPLUS
CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



L5 ANSWER 11 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2003:628420 CAPLUS
 DOCUMENT NUMBER: 139:166961
 TITLE: Secondary nonaqueous-**electrolyte** battery
 with **electrolyte** solvent containing chain
 ester
 INVENTOR(S): Murai, Tetsuya
 PATENT ASSIGNEE(S): Japan Storage Battery Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

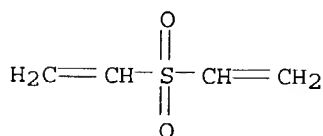
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003229168	A2	20030815	JP 2002-25969	20020201
US 2003170549	A1	20030911	US 2003-347735	20030122
CN 1435906	A	20030813	CN 2003-103136	20030130
			JP 2002-25969	A 20020201

PRIORITY APPLN. INFO.:
 OTHER SOURCE(S): MARPAT 139:166961

IT 77-77-0, Divinyl sulfone
 RL: DEV (Device component use); USES (Uses)
 (solvent; secondary nonaq.-**electrolyte** battery with
electrolyte solvent containing chain ester)

RN 77-77-0 CAPLUS

CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



L5 ANSWER 12 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2003:433060 CAPLUS
 DOCUMENT NUMBER: 139:9309
 TITLE: Organic **electrolyte** solutions and polymer
 electrolytes containing carbonates having
 carbon-carbon double bonds and secondary lithium
 batteries
 INVENTOR(S): Oh, Wan-seok; Lee, Sang-won; Kim, Ko-sup; Choi,
 Sang-hoon
 PATENT ASSIGNEE(S): Samsung Sdi Co., Ltd., S. Korea
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

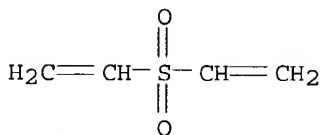
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003163032	A2	20030606	JP 2002-257063	20020902
KR 2003023290	A	20030319	KR 2001-56438	20010913
US 2003113634	A1	20030619	US 2002-232315	20020903
CN 1407649	A	20030402	CN 2002-142971	20020913
			KR 2001-56438	A 20010913

PRIORITY APPLN. INFO.:
 IT 77-77-0, Vinyl sulfone

RL: DEV (Device component use); MOA (Modifier or additive use); TEM
(Technical or engineered material use); USES (Uses)
(**electrolyte** solns. containing ethylenically unsatd. carbonates
for use in secondary lithium battery polymer electrolytes)

RN 77-77-0 CAPLUS

CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



L12 in EAST

L5 ANSWER 13 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:812215 CAPLUS

DOCUMENT NUMBER: 137:339972

TITLE: Nonaqueous **electrolyte** containing nonaqueous
solvents and nonaqueous **electrolyte**
secondary battery using the same for suppression of
gas generation during high-temperature storage and
charging/discharging processes

INVENTOR(S): Sekino, Masahiro; Sato, Asako; Fujiwara, Masashi;
Monma, Shun; Hasebe, Hiroyuki

PATENT ASSIGNEE(S): Toshiba Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

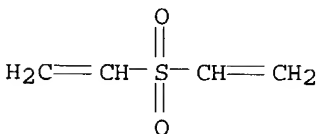
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002313418	A2	20021025	JP 2001-110918	20010410
PRIORITY APPLN. INFO.:			JP 2001-110918	20010410

IT 77-77-0, Divinylsulfone

RL: TEM (Technical or engineered material use); USES (Uses)
(solvent in nonaq. **electrolyte** used for Li secondary battery)

RN 77-77-0 CAPLUS

CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



L5 ANSWER 14 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:674628 CAPLUS

DOCUMENT NUMBER: 137:188305

TITLE: Nonaqueous secondary battery having enhanced discharge
capacity retention

INVENTOR(S): Hamamoto, Toshikazu; Abe, Koji; Takai, Tsutomu;
Matsumori, Yasuo; Ueki, Akira

PATENT ASSIGNEE(S): Japan

SOURCE: U.S. Pat. Appl. Publ., 13 pp., Cont.-in-part of U.S.
Ser. No. 631,518.

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

CODEN: USXXCO

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002122988	A1	20020905	US 2001-21130	20011022
JP 2001052735	A2	20010223	JP 1999-219708	19990803
JP 3444243	B2	20030908		
JP 2002134167	A2	20020510	JP 2000-321146	20001020
JP 2002203594	A2	20020719	JP 2000-363656	20001129

PRIORITY APPLN. INFO.:
JP 1999-219708 A 19990803
US 2000-631518 A2 20000803
JP 2000-321146 A 20001020
JP 2000-335946 A 20001102
JP 2000-363656 A 20001129

OTHER SOURCE(S): MARPAT 137:188305

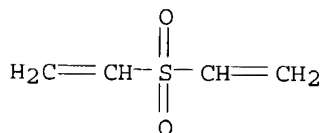
IT 77-77-0, Divinylsulfone

RL: MOA (Modifier or additive use); USES (Uses)

(nonaq. secondary battery having enhanced discharge capacity retention)

RN 77-77-0 CAPLUS

CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



L5 ANSWER 15 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:636908 CAPLUS

DOCUMENT NUMBER: 137:188196

TITLE: Separator with sulfur compound thin film for secondary battery and the battery using it

INVENTOR(S): Yamada, Kazuhiro; Kobayashi, Shigeaki; Kaimai, Norimitsu; Takita, Kotaro; Kono, Koichi

PATENT ASSIGNEE(S): Tonen Chemical Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002237285	A2	20020823	JP 2001-32144	20010208

PRIORITY APPLN. INFO.:
JP 2001-32144 20010208

OTHER SOURCE(S): MARPAT 137:188196

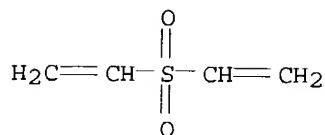
IT 77-77-0, Vinyl sulfone

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(separator with S compound thin film on porous polyolefin film for battery with low irreversible anode capacity and good cycling performance)

RN 77-77-0 CAPLUS

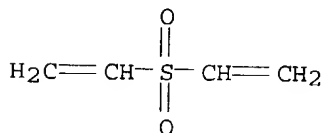
CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



L5 ANSWER 16 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2002:314520 CAPLUS
 DOCUMENT NUMBER: 136:328190
 TITLE: Nonaqueous secondary battery having enhanced discharge capacity retention
 INVENTOR(S): Abe, Koji; Ueki, Akira; Hamamoto, Toshikazu
 PATENT ASSIGNEE(S): Ube Industries, Ltd., Japan
 SOURCE: Eur. Pat. Appl., 15 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1199766	A2	20020424	EP 2001-124312	20011019
EP 1199766	A3	20040602		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2002134167	A2	20020510	JP 2000-321146	20001020
JP 2002203594	A2	20020719	JP 2000-363656	20001129
CN 1350343	A	20020522	CN 2001-142417	20011019
PRIORITY APPLN. INFO.:				
			JP 2000-321146	A 20001020
			JP 2000-335946	A 20001102
			JP 2000-363656	A 20001129

OTHER SOURCE(S): MARPAT 136:328190
 IT 77-77-0, Divinylsulfone
 RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
 (nonaq. secondary battery having enhanced discharge capacity retention)
 RN 77-77-0 CAPLUS
 CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



L5 ANSWER 17 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2001:546079 CAPLUS
 DOCUMENT NUMBER: 135:109752
 TITLE: **Electrolyte** for lithium secondary battery
 INVENTOR(S): Kim, Jin-sung; Lee, Jong-wook; Kim, Kwang-sik; Kim, Young-gyu; Kim, Je-yun; Kim, Jong-seob
 PATENT ASSIGNEE(S): S. Korea
 SOURCE: U.S. Pat. Appl. Publ., 7 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2001009744	A1	20010726	US 2001-766520	20010119
KR 2001086281	A	20010910	KR 2000-81253	20001223
JP 2001223024	A2	20010817	JP 2001-10953	20010119
US 2004157133	A1	20040812	US 2003-718478	20031118
PRIORITY APPLN. INFO.:			KR 2000-2947	A 20000121
			KR 2000-81253	A 20001223
			US 2001-766520	A2 20010119

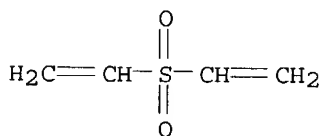
OTHER SOURCE(S): MARPAT 135:109752

IT 77-77-0, Vinyl sulfone

RL: MOA (Modifier or additive use); USES (Uses)
(sulfone based organic compound containing **electrolyte** for lithium secondary battery)

RN 77-77-0 CAPLUS

CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



L5 ANSWER 18 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:485540 CAPLUS

DOCUMENT NUMBER: 135:95152

TITLE: Nonaqueous-**electrolyte** solution containing organic additive and battery using it

INVENTOR(S): Yamada, Kazuhiro; Saito, Toshiya; Taki, Takayuki; Asano, Satoshi; Takatsuna, Kazutoshi

PATENT ASSIGNEE(S): Tonen Chemical Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001185212	A2	20010706	JP 1999-364694	19991222
PRIORITY APPLN. INFO.:			JP 1999-364694	19991222

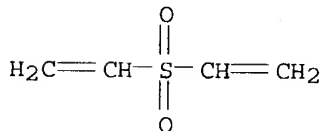
IT 77-77-0

RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(nonaq.-**electrolyte** solution containing organic additive for battery having long cycle life)

RN 77-77-0 CAPLUS

CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



L5 ANSWER 19 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:145044 CAPLUS

DOCUMENT NUMBER: 134:195752

TITLE: Nonaqueous **electrolyte** solution and secondary lithium battery using it

INVENTOR(S): Hinohara, Akio

PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001057234	A2	20010227	JP 1999-232211	19990819
PRIORITY APPLN. INFO.:			JP 1999-232211	19990819

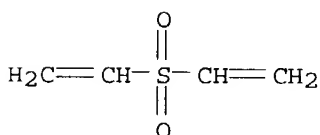
IT 77-77-0, Divinyl sulfone

RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(nonaq. **electrolyte** solution for secondary lithium battery with long cycle life)

RN 77-77-0 CAPLUS

CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



L5 ANSWER 20 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:117401 CAPLUS

DOCUMENT NUMBER: 134:165674

TITLE: Nonaqueous **electrolyte** solutions and secondary lithium batteries using the **electrolyte** solutions

INVENTOR(S): Hamamoto, Shunichi; Ueki, Akira; Abe, Hiroshi; Matsumori, Yasuo

PATENT ASSIGNEE(S): Ube Industries, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001043895	A2	20010216	JP 2000-116327	20000418
CN 1277468	A	20001220	CN 2000-122508	20000524
PRIORITY APPLN. INFO.:			JP 1999-143222	A. 19990524
			JP 2000-116327	A. 20000418

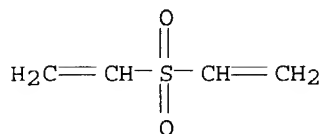
IT 77-77-0, Divinylsulfone

RL: DEV (Device component use); PRP (Properties); USES (Uses)

(nonaq. **electrolyte** solns. with controlled reduction p.d. among solvent components for secondary lithium batteries)

RN 77-77-0 CAPLUS

CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



L5 ANSWER 21 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:62801 CAPLUS

DOCUMENT NUMBER: 134:118407

TITLE: Nonaqueous **electrolyte** solutions and

secondary lithium batteries using the solutions

INVENTOR(S): Hamamoto, Shunichi; Abe, Hiroshi; Takai, Tsutomu;
Matsumori, Yasuo

PATENT ASSIGNEE(S): Ube Industries, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001023688	A2	20010126	JP 1999-198351	19990713
US 2003148190	A1	20030807	US 2000-569185	20000511
US 2004121240	A1	20040624	US 2003-731633	20031209
PRIORITY APPLN. INFO.:			JP 1998-132829	A 19980515
			JP 1999-198351	A 19990713
			US 2000-569185	A1 20000511

OTHER SOURCE(S): MARPAT 134:118407

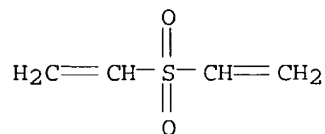
IT 77-77-0, Divinyl sulfone

RL: MOA (Modifier or additive use); USES (Uses)

(Nonaq. **electrolyte** solns. and secondary lithium batteries
using the solns.)

RN 77-77-0 CAPLUS

CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



L5 ANSWER 22 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:437884 CAPLUS

DOCUMENT NUMBER: 133:177823

TITLE: Swelling Behavior of Covalently Cross-Linked Gellan
Gels

AUTHOR(S): Annaka, Masahiko; Ogata, Yuko; Nakahira, Takayuki

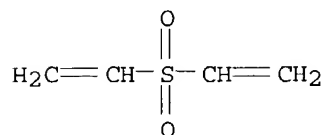
CORPORATE SOURCE: Department of Materials Technology, Chiba University,
Chiba, 263-8522, Japan

SOURCE: Journal of Physical Chemistry B (2000), 104(29),
6755-6760

CODEN: JPCBFK; ISSN: 1089-5647

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT 77-77-0D, Divinyl sulfone, crosslinked polymers with gellan
 RL: PRP (Properties)
 (effect of salt concentration and pH on swelling equilibrium of divinyl sulfone crosslinked gellan gels)
 RN 77-77-0 CAPLUS
 CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



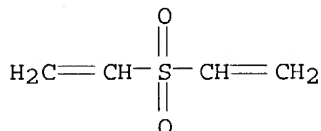
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 23 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1999:756239 CAPLUS
 DOCUMENT NUMBER: 131:339492
 TITLE: Electrolytes for secondary lithium batteries and the batteries
 INVENTOR(S): Hamamoto, Shunichi; Abe, Hiroshi; Takai, Tsutomu
 PATENT ASSIGNEE(S): Ube Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11329494	A2	19991130	JP 1998-132829	19980515
US 2003148190	A1	20030807	US 2000-569185	20000511
			JP 1998-132829	A 19980515
			JP 1999-198351	A 19990713

PRIORITY APPLN. INFO.:
 OTHER SOURCE(S): MARPAT 131:339492

IT 77-77-0, Divinyl sulfone
 RL: DEV (Device component use); USES (Uses)
 (lithium salt electrolyte solns. containing vinyl sulfone derivs. for secondary lithium batteries)
 RN 77-77-0 CAPLUS
 CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)



L5 ANSWER 24 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1998:496179 CAPLUS
 DOCUMENT NUMBER: 129:138540
 TITLE: Manufacture of batteries electrodes and batteries using the electrodes

INVENTOR(S): Okada, Mikio
PATENT ASSIGNEE(S): Japan Storage Battery Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10199570	A2	19980731	JP 1996-358332	19961228
PRIORITY APPLN. INFO. IT 62804-37-9			JP 1996-358332	19961228

RL: MOA (Modifier or additive use); USES (Uses)

(manufacture of polymer containing electrodes for secondary lithium batteries)

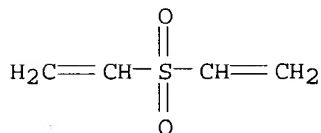
RN 62804-37-9 CAPLUS

CN Ethene, 1,1'-sulfonylbis-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 77-77-0

CMF C4 H6 O2 S



L5 ANSWER 25 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:414652 CAPLUS

DOCUMENT NUMBER: 129:83770

TITLE: Passivation-free solid state secondary battery

INVENTOR(S): Abraham, Kuzhikalail M.; Peramunage, Dharmasena

PATENT ASSIGNEE(S): EIC Laboratories, Inc., USA

SOURCE: U.S., 10 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5766796	A	19980616	US 1997-851876	19970506
PRIORITY APPLN. INFO. IT 62804-37-9D, lithium complexes			US 1997-851876	19970506

RL: TEM (Technical or engineered material use); USES (Uses)

(electrolyte in passivation-free solid state secondary lithium-ion batteries)

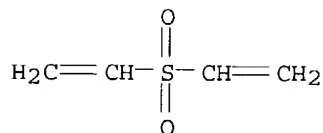
RN 62804-37-9 CAPLUS

CN Ethene, 1,1'-sulfonylbis-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 77-77-0

CMF C4 H6 O2 S



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 26 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1997:340948 CAPLUS
 DOCUMENT NUMBER: 127:21018
 TITLE: Secondary nonaqueous **electrolyte** batteries using improved cathode active masses
 INVENTOR(S): Kato, Naoyuki
 PATENT ASSIGNEE(S): Sony Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

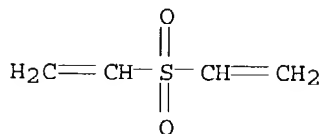
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09082360	A2	19970328	JP 1995-236676	19950914
PRIORITY APPLN. INFO.: IT 62804-37-9			JP 1995-236676	19950914

IT 62804-37-9 Divinyl sulfone homopolymer
 RL: DEV (Device component use); USES (Uses)
 (solid **electrolyte**; nonaq. batteries using Li composite oxide cathodes coated with Li ion-conductive solid electrolytes for high-temperature capacity)

RN 62804-37-9 CAPLUS
 CN Ethene, 1,1'-sulfonylbis-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 77-77-0
 CMF C4 H6 O2 S



L5 ANSWER 27 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1996:34970 CAPLUS
 DOCUMENT NUMBER: 124:122114
 TITLE: Solid poly(vinyl sulfone) electrolytes for secondary lithium ion batteries
 INVENTOR(S): Abraham, Kuzhikalail M.; Alamgir, Mohamed; Choe, Hyoun S.
 PATENT ASSIGNEE(S): EIC Laboratories, Inc., USA
 SOURCE: U.S., 8 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5474860	A	19951212	US 1994-249504	19940526
PRIORITY APPLN. INFO.:			US 1994-249504	19940526

IT 62804-37-9D, Divinyl sulfone homopolymer, lithium complexes

RL: DEV (Device component use); USES (Uses)

(electrolytes for secondary lithium ion batteries)

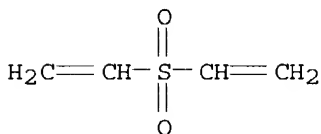
RN 62804-37-9 CAPLUS

CN Ethene, 1,1'-sulfonylbis-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 77-77-0

CMF C4 H6 O2 S



L5 ANSWER 28 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:796352 CAPLUS

DOCUMENT NUMBER: 123:229586

TITLE: Preparation and characterization of poly(vinyl sulfone)- and poly(vinylidene fluoride)-based electrolytes

AUTHOR(S): Choe, H. S.; Giacciai, J.; Alamgir, M.; Abraham, K. M.

CORPORATE SOURCE: EIC Laboratories, Inc., Norwood, MA, 02062, USA

SOURCE: Electrochimica Acta (1995), 40(13-14), 2289-93
CODEN: ELCAAV; ISSN: 0013-4686

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 62804-37-9, Divinyl sulfone homopolymer

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)

(preparation and characterization of poly(vinyl sulfone)- and poly(vinylidene fluoride)-based electrolytes)

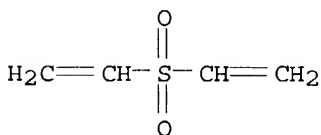
RN 62804-37-9 CAPLUS

CN Ethene, 1,1'-sulfonylbis-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 77-77-0

CMF C4 H6 O2 S



IT 62804-37-9D, Divinyl sulfone homopolymer, lithium complexes

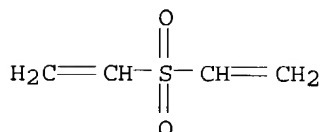
RL: PRP (Properties)

(preparation and characterization of poly(vinyl sulfone)- and

poly(vinylidene fluoride)-based electrolytes)
RN 62804-37-9 CAPLUS
CN Ethene, 1,1'-sulfonylbis-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 77-77-0
CMF C4 H6 O2 S

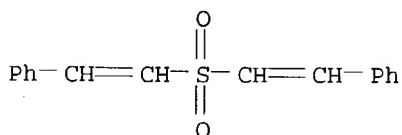


L5 ANSWER 29 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1977:129904 CAPLUS
DOCUMENT NUMBER: 86:129904
TITLE: Electrochemical reduction of styryl sulfones in DMF
AUTHOR(S): Berdnikov, E. A.; Fedorov, S. B.; Kargin, Yu. M.
CORPORATE SOURCE: Kazan. Gos. Univ. im. Ul'yanova-Lenina, Kazan, USSR
SOURCE: Doklady Akademii Nauk SSSR (1977), 232(4), 832-4
[Phys. Chem.]
CODEN: DANKAS; ISSN: 0002-3264
DOCUMENT TYPE: Journal
LANGUAGE: Russian

IT 4973-50-6

RL: RCT (Reactant); RACT (Reactant or reagent)
(reduction of, polarog., in DMF)

RN 4973-50-6 CAPLUS
CN Benzene, 1,1'-(sulfonyldi-2,1-ethenediyl)bis- (9CI) (CA INDEX NAME)



L5 ANSWER 30 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1974:49406 CAPLUS
DOCUMENT NUMBER: 80:49406
TITLE: Surface deposition by electrolytic polymerization
PATENT ASSIGNEE(S): Toyota Motor Co., Ltd.
SOURCE: Brit., 5 pp.
CODEN: BRXXAA
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1330212	A	19730912	GB 1971-38228	19710813
JP 48036402	B4	19731105	JP 1970-71601	19700817
CA 952471	A1	19740806	CA 1971-120544	19710813
PRIORITY APPLN. INFO.:			JP 1970-71601	A 19700817

IT 52007-23-5 52007-25-7

RL: USES (Uses)

(coating with, of metal surfaces by electrodeposition)

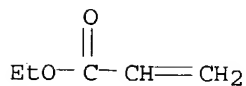
RN 52007-23-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with ethyl 2-propenoate and 1,1'-sulfonylbis[ethene] (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5

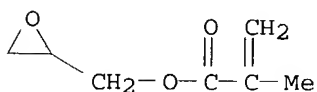
CMF C5 H8 O2



CM 2

CRN 106-91-2

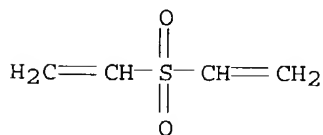
CMF C7 H10 O3



CM 3

CRN 77-77-0

CMF C4 H6 O2 S



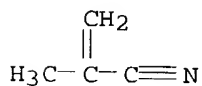
RN 52007-25-7 CAPLUS

CN 2-Propenoic acid, oxiranylmethyl ester, polymer with ethenyl acetate, 2-methyl-2-propenenitrile and 1,1'-sulfonylbis[ethene] (9CI) (CA INDEX NAME)

CM 1

CRN 126-98-7

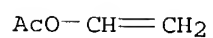
CMF C4 H5 N



CM 2

CRN 108-05-4

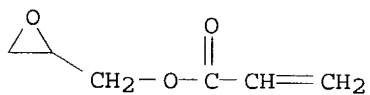
CMF C4 H6 O2



CM 3

CRN 106-90-1

CMF C6 H8 O3



CM 4

CRN 77-77-0

CMF C4 H6 O2 S

